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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/727,616	12/05/2003	Chien-Hung Kuo	08970.0002	7896
24504	7590	11/17/2005	EXAMINER	
THOMAS, KAYDEN, HORSTEMEYER & RISLEY, LLP 100 GALLERIA PARKWAY, NW STE 1750 ATLANTA, GA 30339-5948			KIM, RICHARD H	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

**Office Action Summary**

Application No.

10/727,616

Applicant(s)

KUO ET AL.

Examiner

Richard H. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the current drawings are hand drawn. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 5, 6, 9, 11, 13, 16 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Iino (US 5,291,184).

Referring to claim 1, Iino discloses a light-emitting source emitting light (10); and reflector further comprising a base and a plurality of sidewalls extending from the base (20), wherein each of the sidewalls further comprises a multi-angle surface, in conjunction with the base (20), reflecting the emitted light toward a diffusion plate diffusing the reflected light (9).

Referring to claim 2, Iino discloses that the light-emitting source further comprises a lamp (10).

Referring to claim 5, Iino discloses that the multi-angle surface is an infinite angle surface (20).

Referring to claim 6, Iino discloses that the light emitting source, the reflector and the diffusion plate form a backlight assembly for the liquid crystal display device (1).

Referring to claim 9, Iino discloses the device comprising a plurality of optical sheets formed on the diffusion plate (6, 7).

Referring to claim 11, Iino discloses a device comprising a light-emitting source emitting light (10); a multi angle reflector for reflecting the emitted light (20); and a diffusion plate for diffusing the reflected light (9).

Referring to claim 13, Iino discloses that the light emitting source further comprises a lamp (10).

Referring to claim 16, Iino discloses that the multi angle surface further comprises an infinite-angle surface and curved surface (20).

Referring to claim 19, Iino discloses a plurality of optical sheets formed on the diffusion plate (5-7).

3. Claims 3, 12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iino in view of Ogawa et al. (US 4,803,399).

Referring to claim 3 and 14, Iino discloses the device previously recited, but fails to disclose that the light-emitting source comprises a cold cathode fluorescent lamp.

Ogawa et al. discloses a device comprising a fluorescent lamp (2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a cold cathode fluorescent lamp since one would be motivated to obtain high luminance and efficiency (col. 2, lines 14-15).

Referring to claims 12, Iino discloses the device previously recited, and further discloses a base, and a plurality of sidewalls, wherein each of the sidewalls comprises a multi-angle surface, in conjunction with the base (20) but fails to disclose that the base is formed substantially parallel to the light emitting source.

Ogawa et al. discloses a device wherein the base is formed substantially parallel to the light emitting source (2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the base to be formed substantially parallel to the light emitting source since one would be motivated to obtain high luminance and efficiency (col. 2, lines 14-15) by employ an elongated fluorescent tube.

4. Claims 4, 10, 15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iino et al.

Iino et al. disclose the device previously recited, but fails to disclose that the diffusion plate is made of acrylic resin and is disposed between two prism sheets.

It would have been obvious to one having ordinary skill in the art at the time the invention was made for the diffusion plate to be made of acrylic resin and disposed between two prism sheets, since utilizing prism sheets in combination with acrylic resin diffusion sheets are well known in the art in order to provide effective scattering of reflected light.

5. Claims 7, 8, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iino in view of Urlaub et al. (US 5,926,233).

Iino discloses the device previously recited, but fails to disclose a frame accommodating the light emitting source and the reflector, a base portion mounting the reflector; and a plurality of sidewall portions extending from the base portion and supporting the diffusion plate.

Urlaub et al. discloses a frame accommodating a light emitting source (6) and an inset (3), a base portion mounting the inset (3), and a plurality of sidewall portions extending from the base portion (2).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a frame accommodating the light emitting source and the reflector, a base portion mounting the reflector; and a plurality of sidewall portions extending from the base portion and supporting the diffusion plate since one would be motivated to provide support and protection to the apparatus.

### ***Response to Arguments***

6. Applicant's arguments filed 9/12/05 have been fully considered but they are not persuasive.

7. In response to Applicant's argument that Iino fails to disclose the reflector with multi-angle surface as defined in claim 1 or a multi-angle reflector as disclosed in claim 11, Examiner submits that the curved reflector surface is comprised of a continuous stretch of angles, thereby meeting the limitation of a multi-angled surface.

8. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, the motivation for using a fluorescent lamp is clearly disclosed in column 2, lines 14-15 of Ogawa et al. as is clearly described in the above rejection. Since, Ogawa et al. discloses a clear advantage/motivation to employ a fluorescent lamp (col. 2, lines 14-15), the exclusion of such a lamp takes away such an advantage and therefore, would in essence constitute a disadvantage.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

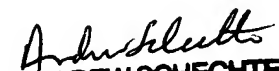
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard H. Kim whose telephone number is (571)272-2294. The examiner can normally be reached on 9:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on (571)272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard H Kim  
Examiner  
Art Unit 2871

RHK

  
ANDREW SCHECHTER  
PRIMARY EXAMINER